

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-32 (Previously cancelled).

33. (Currently amended) A method for reducing colonization of ~~enterohemorrhagic~~ enterohemorrhagic *Escherichia coli* (EHEC) in a non-human mammal comprising administering to said ~~ruminant a therapeutically~~ non-human mammal an effective amount of a composition comprising an EHEC cell culture supernatant.

34. (Currently amended) A method for reducing shedding of ~~enterohemorrhagic~~ enterohemorrhagic *Escherichia coli* (EHEC) from a non-human mammal comprising administering to said ~~ruminant a therapeutically~~ non-human mammal an effective amount of a composition comprising an EHEC cell culture supernatant.

35. (Currently amended) The method of claim 33, wherein the non-human mammal is a ruminant.

36. (Previously presented) The method of claim 35, wherein the ruminant is a bovine subject.

37. (Previously presented) The method of claim 33, wherein the composition further comprises an immunological adjuvant.

38. (Previously presented) The method of claim 33, wherein the EHEC is EHEC O157:H7.

39. (Previously presented) The method of claim 33, wherein the EHEC is EHEC O157:NM.

40. (Previously presented) The method of claim 37, wherein the immunological adjuvant comprises an oil-in-water emulsion.

41. (Currently amended) The method of claim ~~40~~37, wherein the immunological adjuvant comprises a mineral oil and dimethyldioctadecylammonium bromide.

42. (Currently amended) The method of claim ~~41~~37, wherein the immunological adjuvant is ~~VSA3~~ comprises a non-oil-in-water emulsion.

43. (Currently amended) The method of claim ~~42~~37, wherein the ~~VSA3~~ immunological adjuvant is present in the composition at a concentration of ~~about~~ 20% to ~~about~~ 40% (v/v).

44. (Currently amended) The method of claim 43, wherein the ~~VSA3~~ immunological adjuvant is present in the composition at a concentration of ~~about~~ 30% (v/v).

45. (Previously presented) The method of claim 33, wherein the composition further comprises one or more recombinant or purified EHEC antigens selected from the group consisting of EspA, EspB, EspD, Tir and Intimin.

46. (Currently amended) The method of claim 45, wherein EspA+Tir comprise ~~at least 20%~~ 10% to 50% of the cell protein present in the composition.

47. (Previously presented) The method of claim 37, wherein the composition further comprises one or more recombinant or purified EHEC antigens selected from the group consisting of EspA, EspB, EspD, Tir and Intimin.

48. (Currently amended) The method of claim 47, wherein EspA+Tir comprise ~~at least 20%~~ 10% to 50% of the cell protein present in the composition.

49. (Currently amended) The method of claim 34, wherein the non-human mammal is a ruminant.
50. (Previously presented) The method of claim 49, wherein the ruminant is a bovine subject.
51. (Previously presented) The method of claim 34, wherein the composition further comprises an immunological adjuvant.
52. (Previously presented) The method of claim 34, wherein the EHEC is EHEC O157:H7.
53. (Previously presented) The method of claim 34, wherein the EHEC is EHEC O157:NM.
54. (Previously presented) The method of claim 51, wherein the immunological adjuvant comprises an oil-in-water emulsion.
55. (Currently amended) The method of claim ~~54~~51, wherein the immunological adjuvant comprises a mineral oil and dimethyldioctadecylammonium bromide.
56. (Currently amended) The method of claim ~~55~~51, wherein the immunological adjuvant is ~~VSA3~~ comprises a non-oil-in-water emulsion.
57. (Currently amended) The method of claim ~~56~~51, wherein ~~VSA3~~ the immunological adjuvant is present in the composition at a concentration of ~~about~~ 20% to ~~about~~ 40% (v/v).
58. (Currently amended) The method of claim ~~57~~51, wherein ~~VSA3~~ the immunological adjuvant is present in the composition at a concentration of ~~about~~ 30% (v/v).

59. (Previously presented) The method of claim 34, wherein the composition further comprises one or more recombinant or purified EHEC antigens selected from the group consisting of EspA, EspB, EspD, Tir and Intimin.

60. (Currently amended) The method of claim 59, wherein EspA+Tir comprise ~~at least 20%~~ 10% to 50% of the cell protein present in the composition.

61. (Previously presented) The method of claim 51, wherein the composition further comprises one or more recombinant or purified EHEC antigens selected from the group consisting of EspA, EspB, EspD, Tir and Intimin.

62. (Currently amended) The method of claim 61, wherein EspA+Tir comprise ~~at least 20%~~ 10% to 50% of the cell protein present in the composition.

63. (New) The method of claim 37 or 51, wherein the immunological adjuvant comprises an agent selected from the group consisting of an emulsifying agent, a muramyl dipeptide, an aqueous agent, a chitosan-based agent, a saponin, an oil, a lipopolysaccharide, a bacterial cell wall extract, a bacterial DNA, a bacterial complex, a synthetic oligonucleotide, and a aliphatic nitrogenous base.

64. (New) The method of claim 63, wherein the emulsifying agent is selected from the group consisting of a natural emulsifying agent, a synthetic emulsifying agent, an anionic emulsifying agent, a cationic emulsifying agent, and a nonionic agent.

65. (New) The method of claim 64, wherein the natural emulsifying agent is selected from the group consisting of acacia, gelatin, lecithin, and cholesterol.

66. (New) The method of claim 64, wherein the anionic emulsifying agent is selected from

the group consisting of a potassium salt of lauric acid, a potassium salt of oleic acid, a sodium salt of lauric acid, a sodium salt of oleic acid, an ammonium salt of lauric acid, an ammonium salt of oleic acid, a calcium salt of a fatty acid, a magnesium salt of a fatty acid, an aluminum salt of a fatty acid, a metallic soap, and an organic sulfonate.

67. (New) The method of claim 66, wherein the organic sulfonate is sodium lauryl sulfate.

68. (New) The method of claim 64, wherein the cationic emulsifying agent is cetyltrimethylammonium bromide.

69. (New) The method of claim 64, wherein the synthetic nonionic agent is selected from the group consisting of a glyceryl ester, a polyoxyethylene glycol ester, a polyoxyethylene glycol ether, and a sorbitan fatty acid ester.

70. (New) The method of claim 69, wherein the glyceryl ester is glyceryl monostearate.

71. (New) The method of claim 69, wherein the sorbitan fatty acid ester is selected from the group consisting of a sorbitan monopalmitate and polyoxyethylene derivatives thereof.

72. (New) The method of claim 69, wherein the polyoxyethylene derivatives is polyoxyethylene sorbitan monopalmitate.

73. (New) The method of claim 63, wherein the aqueous agent is aluminum hydroxide.

74. (New) The method of claim 63, wherein the oil is selected from the group consisting of a mineral oil, a vegetable oil, and an animal oil.

75. (New) The method of claim 74, wherein the vegetable oil is selected from the group

consisting of canola oil, almond oil, cottonseed oil, corn oil, olive oil, peanut oil, safflower oil, sesame oil, and soybean oil.

76. (New) The method of claim 74, wherein the animal oil is selected from the group consisting of cod liver oil, halibut oil, menhaden oil, orange roughy oil and shark liver oil.

77. (New) The method of claim 37 or 51, wherein the immunological adjuvant comprises an oil component.

78. (New) The method of claim 77, wherein the oil component is selected from the group consisting of a single oil, and a mixture of oils.

79. (New) The method of claim 42 or 56, wherein the non-oil-in-water emulsion is selected from the group consisting of an oil emulsion, a water-in-oil emulsion, and a water-in-oil-in-water emulsion.

80. (New) The method of claim 40 or 54, wherein the oil-in-water emulsion is EMULSIGEN PLUSTM, i.e., an emulsion comprising a light mineral oil having 0.05% formalin and 30 mg/ml gentamycin.

81. (New) The method of claim 40 or 54, wherein the oil-in-water emulsion is VSA3.

82. (New) The method of claim 63, wherein the oil is Amphigen.

83. (New) The method of claim 37 or 51, wherein the immunological adjuvant comprises Mycobacterial cell wall extract.

84. (New) The method of claim 37 or 51, wherein the immunological adjuvant comprises

Mycobacterial DNA.

85. (New) The method of claim 37 or 51, wherein the immunological adjuvant comprises a Mycobacterial cell wall complex.

86. (New) The method of claim 63, wherein the aliphatic nitrogenous base is selected from the group consisting of an amine, a quaternary ammonium compound, a guanidine, a benzamidine, and a thiouronium.

87. (New) The method of claim 37 or 51, wherein the immunological adjuvant comprises dimethyl-dioctadecylammonium bromide:

88. (New) The method of claim 63, wherein the aliphatic nitrogenous base is N,N-dioctadecyl-N,N-bis(2-hydroxyethyl)propanediamine.

89. (New) The method of claim 46, 48, 60, or 62, wherein EspA+Tir comprise 20% of the cell protein present in the composition.

90. (New) The method of claim 35 or 49, wherein the ruminant is an ovine subject.